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A COMPUTER PROGRAM GENERATING HISTORICAL INFLATION
FACTORS FOR TROOP SUPPORT ITEMS(U) ARMY TROOP SUPPORT
COMMAND ST LOUIS MO W H GILLE DEC 84 TROS COM-CN-85-7

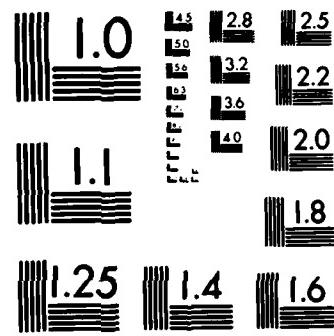
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COST MEMORANDUM

85-7

TROOP SUPPORT INFLATION PROGRAM

(A COMPUTER PROGRAM GENERATING HISTORICAL
INFLATION FACTORS FOR TROOP SUPPORT ITEMS)

WARREN H. GILLE, JR.

DECEMBER 1984

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ELECTED
MAR 04 1985
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U.S. ARMY TROOP SUPPORT
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TROOP SUPPORT INFLATION PROGRAM

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TROOP SUPPORT INFLATION PROGRAM

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I. APPLICABILITY.

The inflation indices and factors in this report have been developed for use in the adjustment of historical costs for U.S. Army troop support items, and are covered under the Other Procurement, Army appropriation. Due to the multiplicity of troop support items, the justification for the selection and use of any index not covered by the schedule listed in Section II of this document is the user's responsibility.

SECTION II

An Overview of Inflation Indices for Troop Support Work

II. AN OVERVIEW OF INFLATION INDICES FOR TROOP SUPPORT WORK.

A. Introduction.

Historical indices are a convenient device for translating the price of an item procured in the past to what the "replacement price" of the item would be today. Several questions, however, should be asked when using an index to update past procurement prices:

1. Is the item for which an updated price is to be calculated obsolete due to changes in technology? Theoretically, prices for WWII vintage equipment can be "updated". However, it should be obvious that this is not a reasonable procedure. To calculate the replacement price for obsolete equipment, a special cost study rather than the application of a numerical index, is required.
2. Is the item under consideration made of the same materials and by the same manufacturing process as when last procured? If the manufacturer has substituted nylon parts for metal parts without loss of performance, or now assembles or packages the item by machine and has significantly lowered his costs, the replacement price for the item could be lower than the index would indicate.
3. Are the conditions of the replacement procurement, if undertaken, identical to past procurement(s)? For instance, are the quantities to be purchased in the old and new procurements similar?
4. Is the index appropriate for use with the item at hand? An index is developed by tracking price changes for a group of items over time. Whether or not a specific index is used for an item depends on whether the item belongs to that group being indexed, and whether it receives adequate representation in the group. For example, aluminum metal items are not accurately tracked using Code 10, Metals and Metal Products, which experienced an inflation rate of 3.7% for FY 84. Rather Code 10-2, Non-Ferrous Metals, is more appropriate because it contains numerous aluminum shapes, forgings, and semi-finished items. Aluminum items have experienced more rapid cost growth than the general group of metal items. Non-ferrous Metals averaged an 6.4% increase in FY 84, as compared to the 3.7% overall average for Metals and Metal Products.

B. Source of Data and Explanation of Codes:

The data used to produce the fiscal year historical inflation indices is supplied by the Kansas City Regional Office, Bureau of Labor Statistics, U.S. Department of Labor. The term PPI code is merely an abbreviation for Producer Price Index code, formerly called the Wholesale Price Index code. The name was changed because raw materials and semi-finished goods are included in the index, not just finished goods at the wholesale level. Producer Price Index codes are two to eight digits in length. The more digits a code has, the more narrowly defined the index is. For example:

PPI Code 11 is Machinery and Equipment

---- a subcategory of Code 11 is:

PPI Code 11-7, Electrical Machinery and Equipment

---- a further refinement is:

PPI Code 11-73, Motors, Generators, and Motor Generator Sets

---- a subcategory of this is:

PPI Code 11-7302, Generators and Generator Sets

---- and a final subcategory of this subcategory:

PPI Code 11-730224, Generator, A.C. 30 Kilowatt

---- which is a single, well defined item.

Because a single PPI code may be used to track a number of similar items, most codes used for troop support work are two, three, or at most four digit codes. A list of the general two digit codes in the Producer's Price Index is presented below. The fifteen PPI codes cover the majority of the items produced and consumed by the U.S. economy.

PRODUCER PRICE INDEX CODES AT THE AGGREGATE LEVEL.

<u>PPI CODE</u>	<u>TITLE</u>
01	Farm Products
02	Processed Foods and Feeds
03	Textile Products and Apparel
04	Hides, Skins, and Related Products
05	Fuel and Related Products and Power
06	Chemicals and Allied Products
07	Rubber and Plastic Products
08	Lumber and Wood Products
09	Pulp, Paper, and Allied Products
10	Metals and Metal Products
11	Machinery and Equipment
12	Furniture and Household Durables
13	Non-metallic Mineral Products
14	Transportation Equipment
15	Miscellaneous Products

A list of Producer Price Index codes and the Troop Support Items with which they have been traditionally associated with at TROSCOM is included Section III of this document.

C. Producer Price Indices used in Troop Support Work.

From a review of documents which span the past 12 years, it was determined that as many as 103 Producer Price Index codes were considered for and/or used in troop support work. A number of these indices were used for Economic Price Adjustment (EPA) contracts, in which contractual obligations are adjusted according to the movement of specialized price indices written into the procurement contract. Most of the remainder are two, three, and four digit codes, similar to those listed in Section III currently used for troop support items.

In order to make updating past prices a manageable exercise, the number of inflation indices had to be reduced significantly. In the early 1970's the set of 103 was reduced to ten, nine specific and one general. These indices are listed on p. 8, and follow on pp. 9-18.

The indexing technique used is called indexing by similarity. Most troop support items have some similar counterpart in private industry. Army heating and air conditioning equipment, compressors, and generators, for example, are similar in nature to commercial equipment. Often a manufacturer may make both military and commercial equipment at the same location. Due to the thousands of troop support items purchased over the years, the most similar index from the basic set of ten Producer Price Indices (PPI's) is used as a proxy.

D. Output Generated by the Computer Program:

Data provided by the Bureau of Labor Statistics is in monthly, calendar year format. The computer program does the following:

(1) Rearranges and prints the monthly index in fiscal year format, including FY 76/7T, as prescribed by Higher Headquarters.

(2) Computes and prints fiscal year averages for the indices, with calendar year 1967 as base year.

(3) Inverts the index, computes, and prints fiscal year factors which can be used to move a price paid for an item in the past to its approximate price in the current time period.

For example, if the fiscal year factors for FY 78 to FY 84 are the following:

<u>Year</u>	<u>Factor</u>
FY 84	1.00
FY 83	1.08
FY 82	1.18
FY 81	1.27
FY 80	1.36
FY 79	1.49
FY 78	1.57

....to update the price paid for an item in FY 78 so that it reflects what would be paid for the same item in FY 84, multiply by 1.57. The fiscal year factors are a convenience provided to the user, and allow any past price to be brought up to date with one multiplication.

E. Additional Publications Concerning Inflation

Among the documents available from this office are:

- (1) The AMC Historical Inflation Report.
- (2) "The AMC Inflation Guidance Package."
- (3) "General Guidance for PRIMIR Submissions."
- (4) Handbook of Army Cost Analysis Terms
- (5) The Historical Research and Development Inflation Indices for U.S. Army Troop Support Items.
- (6) Inflation Indices, An Introduction to Basic Theory and Their Application, with Sample Problems.
- (7) Methodology for Updating Army Materiel Plan (AMP) Cost Estimates.
- (8) The Standard Army Inflation Methodology. (SAIM)
- (9) "The U.S. Cost Forecasting Service Near Term Review."

SECTION III

Computer Generated Inflation Indices

PPI CODES AND ASSOCIATED TROSCOM ITEMS

The following Producer Price Indexes have been associated with the corresponding TROSCOM OPA items for a considerable period of time, and have been used to estimate current prices based on past procurement prices:

<u>Producer Price Index Title and Code</u>	<u>TROSCOM OPA Item</u>
Rubber and Plastic Products PPI Code 07	Collapsible Tanks
Heating Equipment PPI Code 10-6	Air Conditioners Heaters
Fabricated Structural Metal Products PPI Code 10-7	AVL Bridge (Not including Tanks chassis) Tanks Other Bridges
Machinery and Equipment PPI Code 11	Power Plant (MUST) Firefighting Equipment Forklift Trucks
Construction Machinery and Equipment PPI Code 11-2	Pumps Compressors
Watercraft/Small Ships Index provided to TROSCOM by US Naval Sea Systems	Watercraft
Special Industry Machinery and Equipment PPI Code 11-6	Theodolites Tape Equipment Surveying Instruments
Electrical Machinery Equipment PPI Code 11-7	Generators Light Sets Utility Elements
Railroad Equipment PPI Code 14-4	Railroad Equipment
Industrial Commodities Average of PPI Codes 03 through 15.	All other items Not Included in the above.

TROOP SUPPORT HISTORICAL INFLATION INDICES

BLS CODE: 07 RUBBER AND PLASTIC PRODUCTS

FY	FISCAL YR									FISCAL YR FACTOR			
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	YR AVERAGE
84	244.40	243.60	243.80	244.80	246.20	246.40	247.30	247.50	247.90	247.60	247.90	246.19	1.000
83	242.20	241.70	242.20	242.90	242.30	241.80	243.00	242.90	242.70	244.40	244.60	245.10	242.98
92	237.30	238.00	238.30	237.30	239.30	240.80	241.10	242.10	242.50	242.00	242.60	242.50	240.31
81	222.80	223.40	223.30	224.80	226.40	228.40	230.80	231.80	233.40	232.10	234.10	235.70	228.91
80	203.00	204.90	205.90	207.80	210.70	212.70	214.10	215.00	217.30	218.80	220.50	222.00	212.72
79	178.10	179.40	179.70	180.80	183.20	185.90	188.80	190.80	193.10	195.50	198.80	200.70	187.90
78	170.20	170.20	170.00	170.20	171.40	172.80	173.80	174.50	174.90	175.70	176.70	172.95	1.426
77	166.60	166.80	166.70	166.60	166.20	164.60	165.70	166.30	167.50	168.90	169.30	169.39	166.22
FY	FISCAL YR									FISCAL YR FACTOR			
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YR AVERAGE
76	150.10	150.00	150.80	151.50	151.80	151.90	152.40	154.20	155.50	156.70	157.10	157.20	154.80
77	158.20	161.00	163.60										1.590
75	139.50	143.40	145.60	147.50	148.50	149.40	150.60	150.00	149.70	149.40	148.90	148.60	147.50
74	112.90	113.10	112.80	114.00	114.80	116.50	117.70	119.80	123.80	129.40	139.70	135.60	120.34
73	109.20	109.50	109.50	109.50	109.80	109.80	110.00	110.10	110.30	110.60	111.50	112.60	110.20
72	109.70	109.80	109.70	109.50	109.50	109.40	109.50	109.20	108.90	108.70	108.80	108.90	109.30
71	108.50	109.20	109.20	109.10	109.00	109.20	108.40	109.10	109.10	108.70	108.70	108.93	
70	105.70	106.10	105.80	106.60	107.50	107.80	107.70	107.60	107.50	107.20	107.10	107.00	2.300
69	103.50	104.00	104.00	104.20	104.30	104.40	103.20	103.80	104.10	104.40	104.20	104.30	104.03
68	98.80	100.60	101.30	101.90	102.40	102.30	102.40	102.50	102.60	102.60	102.70	103.00	101.94
67	98.10	98.10	97.70	97.60	98.00	98.00	98.70	98.90	99.00	99.00	98.80	98.80	98.39

TROOP SUPPORT HISTORICAL INFLATION INDICES

BLS CODE: 10-6 HEATING EQUIPMENT

FY	FISCAL YR										FISCAL YR FACTOR		
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	YR AVERAGE
66	245.30	245.50	245.70	247.30	248.10	248.50	250.20	252.40	252.30	254.70	255.50	257.50	250.25
83	238.40	238.80	239.30	240.70	241.10	242.30	242.40	242.60	244.00	244.80	245.00	241.67	21.035
82	229.00	228.80	229.90	233.40	233.10	235.40	236.00	237.20	238.50	238.90	239.10	234.80	1.065
91	210.60	212.00	214.00	216.60	217.40	219.50	219.80	222.30	223.50	226.40	227.90	228.50	219.89
80	192.20	193.10	195.60	199.50	202.60	202.60	204.20	204.00	205.00	206.20	208.00	208.80	201.91
79	176.90	177.20	179.10	180.10	180.90	189.40	183.80	185.70	185.20	186.00	188.10	191.30	183.14
78	168.00	168.30	169.30	171.30	170.70	171.30	172.70	173.40	173.90	174.40	176.20	176.00	172.12
77	160.10	160.90	161.80	162.90	163.10	163.70	163.30	164.00	164.50	165.40	166.00	166.80	163.55
FY	FISCAL YR										FISCAL YR FACTOR		
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YR AVERAGE
76	150.20	150.30	150.30	151.90	152.90	155.20	155.70	155.40	155.20	156.00	156.90	157.10	155.00
77	158.50	159.30	160.10										1.614
75	137.10	140.00	141.40	145.00	147.00	148.50	148.30	149.00	149.50	149.80	150.20	150.50	146.35
74	120.90	120.70	120.70	120.80	121.10	121.60	122.90	123.70	124.40	127.50	130.00	132.70	125.91
73	119.00	119.20	119.20	119.20	119.20	119.20	119.20	119.20	119.50	120.50	120.20	120.70	119.49
72	115.90	116.80	116.70	116.30	116.50	116.30	115.90	116.20	117.00	117.90	118.10	118.60	116.85
71	111.40	111.50	111.80	112.40	112.80	113.10	113.60	114.10	114.50	114.70	115.10	115.20	113.35
70	105.40	105.50	105.70	106.60	107.60	107.60	107.90	108.50	108.50	109.30	109.70	110.60	107.68
69	103.10	103.10	103.20	103.30	103.50	103.90	103.60	103.80	104.20	104.60	104.70	105.00	103.83
68	100.00	99.90	100.10	100.30	100.80	101.00	100.80	101.30	101.80	102.30	102.60	102.90	101.15
67	100.20	99.80	100.20	100.60	100.80	100.80	99.90	99.90	99.40	99.50	100.10	99.99	2.502

TROOP SUPPORT HISTORICAL INFLATION INDICES

915 CODE: 10-7 FAB. STRUCTURAL METAL PROD.

FY	FISCAL YR						FISCAL YR AVERAGE							
	OCT	NOV	DEC	JAN	FEB	MAR								
84	304.20	305.30	306.00	306.50	307.00	308.30	309.30	310.60	311.20	311.60	312.30	312.10	308.70	1.000
83	305.90	305.30	304.70	303.60	302.80	303.70	302.50	302.10	301.90	302.20	302.80	304.00	303.45	1.017
82	302.60	303.20	303.00	303.40	304.00	304.50	305.20	304.90	305.30	303.90	304.30	306.40	304.22	1.014
81	276.90	278.00	279.30	283.10	285.40	289.40	293.10	294.00	295.00	297.90	299.30	300.00	289.28	1.067
80	256.30	256.70	257.70	258.90	259.70	265.10	269.10	269.90	270.10	272.20	273.00	274.10	265.23	1.163
79	231.50	232.40	233.50	238.40	240.50	241.30	243.80	247.00	248.20	250.50	252.20	253.70	242.75	1.271
78	211.80	212.20	213.30	214.50	218.90	221.40	224.70	225.10	225.80	226.10	230.10	230.80	221.39	1.394
77	197.60	198.00	198.90	199.40	200.30	201.70	203.10	204.10	204.90	207.90	210.10	211.90	203.15	1.519
FY	FISCAL YR						FISCAL YR AVERAGE							
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN		
76	188.50	189.10	189.20	190.20	190.00	190.90	190.60	190.30	190.80	190.80	192.40	191.32	1.613	
77	196.20	195.10	197.00											
75	165.30	175.10	179.90	182.00	182.50	185.40	189.40	189.90	188.40	188.80	188.60	183.16	1.685	
74	127.10	127.80	128.70	129.60	130.90	131.80	135.40	136.80	140.30	144.00	151.80	136.91	2.254	
73	122.20	122.50	122.70	123.00	123.10	123.30	124.40	124.70	125.00	125.70	126.70	126.90	126.18	2.485
72	119.20	119.60	120.30	120.30	120.40	121.60	122.00	122.10	122.10	122.00	122.20	120.92	2.552	
71	113.00	113.30	113.70	113.80	113.80	114.20	115.20	115.70	116.60	116.80	117.30	117.90	115.10	2.681
70	106.40	106.90	107.20	107.60	107.80	108.40	109.00	110.20	110.50	111.40	112.30	108.80		
69	102.20	102.80	103.00	103.30	103.30	103.60	103.70	103.80	104.00	104.70	105.10	106.00	103.79	2.974
68	99.90	100.30	100.40	100.50	100.70	100.90	101.00	101.40	101.50	101.30	102.10	100.89		3.059
67	99.00	99.00	99.10	99.30	99.50	99.60	99.50	99.50	99.80	99.80	99.70	99.44		3.104

TROOP SUPPORT HISTORICAL INFLATION INDICES

SIC CODE: 11 MACHINERY AND EQUIPMENT

FY	FISCAL YR										FISCAL YR FACTOR			
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	YR AVERAGE	
84	287.60	288.00	288.80	289.70	290.20	291.00	292.20	292.60	293.10	293.70	294.20	294.90	291.30	1.000
83	281.10	281.80	282.40	283.30	284.30	284.70	285.40	285.60	285.80	286.90	287.10	287.80	284.68	1.023
82	269.30	270.40	272.00	274.10	275.40	276.20	277.60	278.20	278.60	279.60	279.90	280.20	275.95	1.055
81	246.80	248.30	249.80	253.30	255.30	257.50	259.60	260.70	262.10	264.80	266.20	268.10	257.70	1.230
80	220.00	221.30	223.40	227.60	230.20	232.50	236.40	237.60	239.20	241.50	242.60	244.70	233.08	1.249
79	200.50	202.70	203.80	205.10	206.50	207.90	209.80	211.60	212.40	214.80	216.00	217.70	209.05	1.393
78	185.60	186.80	187.50	189.30	190.30	191.60	192.70	193.90	195.30	196.50	197.50	198.80	192.15	1.516
77	174.00	174.50	175.40	176.70	177.50	178.20	178.90	180.00	180.70	181.80	182.80	183.80	178.69	1.630
FY	FISCAL YR										FISCAL YR FACTOR			
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YR AVERAGE	
76	161.70	162.20	163.10	164.10	165.30	165.80	167.00	167.70	168.20	168.90	169.40	170.20	167.26	1.741
77	171.00	171.40	172.90											
75	140.30	144.30	146.80	150.00	152.70	154.00	156.60	157.70	158.80	159.70	160.40	161.00	153.52	1.897
74	122.00	122.30	122.60	123.10	123.80	124.60	126.00	127.00	129.00	130.80	134.10	137.20	126.87	2.295
73	118.30	118.30	118.30	118.40	118.50	118.60	118.90	119.40	120.00	121.50	121.90	119.34	2.440	
72	115.70	116.10	116.00	116.00	115.90	116.20	116.50	117.10	117.30	117.60	117.90	118.10	116.70	2.496
71	111.50	111.60	112.10	112.70	113.20	113.80	114.20	114.60	114.90	115.00	115.30	115.50	113.70	2.562
70	106.40	106.60	107.20	107.80	108.30	109.10	109.70	110.10	110.40	110.60	111.00	108.90		2.674
69	103.30	103.50	103.80	104.10	104.30	104.50	104.70	105.20	105.50	105.60	105.80	106.10	104.70	2.782
68	99.90	100.00	100.40	100.80	101.30	101.90	102.20	102.40	102.80	103.00	103.00	101.47		2.870
67	96.90	97.00	97.40	97.90	98.60	99.00	99.40	99.60	99.70	99.90	99.90	98.80		2.950

TACOP SUPPORT HISTORICAL INFLATION INDICES

BLS CODE: 11-2 CONSTRUCTION MACH & EQUIP

	FY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YR AVERAGE	FISCAL YR FACTOR
86	353.60	353.90	353.60	354.20	355.90	355.30	357.50	357.80	358.10	358.20	358.60	359.00	359.30	356.30	1.000
87	347.60	347.90	348.10	348.30	349.30	349.60	350.90	352.20	352.50	352.70	352.80	353.50	350.45	350.45	1.016
88	329.30	329.60	332.00	337.00	337.90	339.20	341.50	343.50	345.90	346.10	346.50	347.50	339.41	339.41	1.049
89	299.10	300.10	301.40	305.90	310.00	312.80	317.00	318.40	320.10	323.80	325.00	326.50	313.34	313.34	1.137
90	263.90	265.40	268.80	276.00	278.30	279.50	284.20	285.90	287.60	291.50	293.40	295.70	280.85	280.85	1.268
79	240.40	242.30	243.80	245.50	247.90	248.70	251.70	253.70	254.00	257.00	258.80	259.90	250.20	250.20	1.424
78	217.20	220.80	223.00	223.90	224.80	225.70	228.40	230.30	231.10	232.80	234.60	237.00	227.43	227.43	1.566
77	202.70	204.50	205.80	207.20	208.00	208.30	210.20	211.70	212.00	213.90	215.30	214.70	209.52	209.52	1.700

	FY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FISCAL YR AVERAGE	FISCAL YR FACTOR
76	184.90	185.40	187.50	188.60	191.20	192.50	193.30	194.40	194.70	195.00	196.40	197.90	193.50	193.50	1.841
77	199.80	200.00	200.90												
75	151.40	161.30	163.40	167.00	169.00	170.00	177.30	180.40	182.00	183.80	184.00	184.40	172.83	172.83	2.061
74	131.30	131.40	131.40	132.50	132.70	134.10	135.60	137.00	138.60	140.10	145.10	148.90	136.55	136.55	2.609
73	125.90	126.10	126.10	126.30	126.30	126.60	126.60	127.40	128.60	130.40	130.90	131.30	127.66	127.66	2.790
72	121.60	121.90	121.80	122.00	123.20	124.30	124.70	125.00	125.70	125.60	125.90	123.62	123.62	2.882	
71	114.90	115.40	115.90	116.20	119.40	120.40	120.20	120.50	120.80	120.90	121.10	121.20	119.07	119.07	
70	109.90	109.90	111.00	112.30	113.00	113.70	114.00	114.10	114.30	114.70	114.80	113.00	113.00	113.00	
69	105.40	105.20	106.20	107.10	107.90	108.00	108.80	109.20	109.30	109.30	109.70	107.91	107.91	107.91	
68	99.70	99.80	99.80	101.20	102.30	102.90	103.70	104.10	104.50	105.00	105.40	105.30	102.80	102.80	
67	96.50	96.50	96.90	97.20	97.90	98.20	98.50	98.80	99.00	99.00	99.40	99.50	98.10	98.10	

WATERCRAFT/SMALL SHIP INDEX

		<u>LABOR</u>	<u>MAT'L</u>	<u>SMALL SHIP INDEX</u>	<u>FISCAL YEAR FACTOR</u>
1975	MAR	N/A	N/A	184.1	1.865
	JUN	188.5	182.1	185.3	
	SEP	194.5	184.0	189.3	
	DEC	193.9	186.9	190.4	
1976	MAR	198.1	191.2	194.7	1.763
	JUN	198.7	195.8	197.3	
	SEP	203.1	197.6	199.5	
	DEC	207.4	200.5	204.0	
1977	MAR	209.3	204.1	206.7	1.661
	JUN	211.8	205.8	208.8	
	SEP	215.0	211.4	213.2	
	DEC	222.1	212.7	217.4	
1978	MAR	229.9	220.2	225.1	1.525
	JUN	230.6	224.7	227.7	
	SEP	236.1	229.2	232.7	
	DEC	243.4	234.1	238.8	
1979	MAR	249.5	244.2	246.9	1.390
	JUN	248.8	248.0	248.4	
	SEP	259.7	251.9	255.8	
	DEC	263.1	258.8	261.0	
1980	MAR	274.0	268.0	271.0	1.267
	JUN	277.0	272.7	274.9	
	SEP	286.3	275.9	281.1	
	DEC	289.4	284.0	286.7	
1981	MAR	295.7	293.0	294.4	1.166
	JUN	300.0	295.9	298.0	
	SEP	314.2	303.9	309.1	
	DEC	321.8	306.2	314.0	
1982	MAR	328.0	309.5	318.8	1.077
	JUN	327.0	308.4	317.7	
	SEP	338.1	308.1	323.1	
	DEC	346.5	307.7	327.1	
1983	MAR	350.2	312.5	331.4	1.036
	JUN	348.5	312.3	330.4	
	SEP	354.0	316.3	335.2	
	DEC	364.9	318.2	341.6	
1984	MAR	364.6	322.0	343.3	1.000
	JUN	361.1	323.7	342.5	
	SEP	364.3	324.6	344.5	

CY 1967 = 100.0 For Materiel

FY 1962 = 100.0 For Labor

Small Ship Index is 50% Labor/50% Mat'l

Source: U. S. Naval Sea Systems, Cost Analysis Branch.

TROOP SUPPORT MISCELLANEOUS INFORMATION INOCLES

911-6 SPECIAL INDO. MACH & EQUIP

FY	FISCAL YR FACTOR						FISCAL YR FACTOR						
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	YR AVERAGE
84	340.60	341.00	342.00	342.00	343.20	344.60	346.80	348.20	351.00	352.30	350.30	345.88	1.000
83	327.80	329.10	329.90	331.80	332.60	333.60	334.50	335.60	336.30	337.80	338.90	340.50	334.03
82	314.60	315.00	316.40	320.40	320.70	321.30	322.90	323.90	325.00	327.10	326.70	326.80	321.73
81	286.00	287.70	290.90	295.60	299.20	301.00	303.20	307.20	308.80	311.00	310.30	312.80	301.14
80	253.80	254.90	256.10	260.60	263.20	265.50	271.90	273.00	274.30	276.70	277.10	283.00	267.50
79	230.20	232.80	233.90	236.20	237.00	239.10	243.60	245.10	246.10	249.80	251.00	251.20	241.31
78	209.50	209.90	211.80	213.50	214.40	216.40	218.20	219.00	222.00	223.30	225.10	227.00	217.50
77	191.80	192.00	193.00	195.40	196.40	197.20	199.10	200.70	201.90	202.80	203.80	204.10	198.18
													1.745
FY	FISCAL YR FACTOR						FISCAL YR FACTOR						FISCAL YR FACTOR
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YR AVERAGE
76	175.60	176.40	176.50	178.70	179.60	181.10	183.20	183.70	184.60	186.10	186.70	186.30	183.45
77	190.00	190.40	190.90										1.885
75	150.30	156.10	158.70	162.00	163.90	165.90	168.50	169.60	172.90	173.30	173.40	174.30	165.70
74	130.20	131.70	132.60	132.90	133.30	134.90	136.00	138.20	141.80	143.40	147.00	148.90	137.57
73	123.90	124.00	124.00	124.30	124.50	124.60	124.90	126.50	127.00	128.50	129.00	130.00	125.93
72	121.60	121.60	121.70	122.00	122.00	122.10	122.60	123.10	123.00	123.40	123.50	123.70	122.52
71	115.70	115.90	116.40	117.50	117.40	118.30	119.30	119.40	119.60	119.70	120.40	120.90	118.37
70	110.40	110.50	110.80	111.30	111.70	113.50	114.10	114.20	114.30	114.50	114.80	115.00	112.92
69	105.70	105.70	106.00	106.30	106.90	106.90	107.40	108.30	108.60	109.30	109.50	107.45	103.62
68	99.70	100.10	100.10	101.30	101.40	102.00	103.30	103.40	104.60	105.10	105.20	102.45	3.219
67	96.10	96.70	97.00	97.60	97.80	97.90	98.70	99.10	99.30	99.70	99.70	98.22	3.521

TRGDP SUPPORT HISTORICAL INFLATION INDICES

3LS CCDE: 11-7 ELECTRICAL MACHINERY & EQUIPMENT

FY	FISCAL YR						FISCAL YR AVERAGE
	OCT	NOV	DEC	JAN	FEB	MAR	
64	242.60	242.80	243.80	244.70	245.70	246.70	246.47
63	232.60	233.70	234.20	235.20	237.20	237.50	237.43
62	225.30	226.00	227.00	228.70	229.50	230.30	231.70
61	207.00	207.50	208.90	211.90	213.70	216.00	217.40
60	184.30	184.90	186.60	190.60	194.30	196.50	198.90
79	167.50	169.60	170.50	171.20	172.80	173.80	175.00
78	157.30	157.90	158.00	160.00	160.70	161.80	162.70
77	149.20	149.50	150.00	150.80	151.40	151.90	152.00
76	140.00	140.90	141.80	142.30	143.10	143.10	144.00
75	126.30	128.90	130.40	132.40	135.40	136.50	138.10
74	112.70	112.70	112.80	113.00	113.30	114.00	115.10
73	110.70	110.60	110.60	110.50	110.60	110.90	111.00
72	109.50	109.90	109.70	109.60	109.30	109.50	110.00
71	106.70	106.90	107.40	107.50	107.90	108.20	108.80
70	102.80	102.80	103.50	103.70	104.20	104.50	104.90
69	101.10	101.30	101.60	101.70	101.80	101.70	101.70
68	100.00	99.80	99.70	99.60	99.70	100.50	100.80
67	97.20	97.30	97.40	97.70	98.90	99.70	100.00

TRCOP SUPPORT HISTORICAL INFLATION INDICES

BLS CODE: 144 RAILROAD EQUIPMENT

FY	FISCAL YR FACTOR													
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	YR AVERAGE	
84	348.60	348.60	350.50	351.50	352.00	380.80	354.40	363.40	364.60	364.60	364.60	357.07	1.000	
83	350.80	350.80	350.80	350.80	350.50	350.30	350.00	350.40	350.10	351.30	351.00	350.70	350.62	
82	338.70	341.30	340.10	345.80	345.80	346.30	343.50	342.80	342.80	342.60	347.70	348.00	343.78	
81	323.30	323.60	323.90	332.50	332.50	333.90	335.70	331.20	331.40	338.10	338.70	338.70	331.95	
80	286.30	288.20	289.00	297.50	299.30	302.10	309.90	310.30	312.20	316.40	318.00	320.80	304.11	
79	260.30	261.50	261.80	266.40	268.00	268.90	271.70	271.60	274.70	280.60	280.90	281.60	270.66	
78	238.70	238.70	239.70	243.70	244.60	244.60	250.20	250.90	251.00	253.80	254.20	256.60	247.22	
77	222.80	222.80	223.30	227.90	227.90	230.00	231.10	232.00	234.20	235.20	235.20	229.45	1.556	
FY	FISCAL YR FACTOR													
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YR AVERAGE	
76	202.30	201.80	202.40	204.70	206.90	207.80	209.10	211.90	211.90	213.80	213.90	215.60	210.46	
77	216.90	218.90	219.10										1.696	
75	168.20	174.50	178.00	181.00	183.90	187.80	196.30	197.10	198.20	199.50	199.20	188.48	1.894	
74	134.80	135.20	136.10	136.20	136.70	138.60	140.20	141.00	144.70	148.50	153.70	142.45	2.506	
73	130.20	130.20	130.20	130.20	130.20	131.10	131.80	132.20	132.70	133.40	134.30	131.77	2.709	
72	121.50	122.80	122.50	122.50	122.50	122.60	123.70	123.90	127.30	128.40	129.60	126.74	2.862	
71	115.10	115.10	115.30	116.00	116.10	116.70	119.00	119.00	119.90	120.40	120.80	117.77	3.031	
70	110.50	110.70	110.70	111.50	111.50	112.00	113.40	113.70	114.50	114.70	115.10	112.75	3.166	
69	103.40	103.60	103.60	104.90	104.90	104.90	104.90	104.90	106.60	106.60	107.40	108.10	105.31	3.390
68	99.50	99.50	99.50	101.10	101.40	101.40	101.90	101.90	101.90	101.90	101.90	101.90	101.15	3.530
67	97.50	97.50	97.50	97.50	97.50	99.10	99.50	99.50	99.50	99.50	99.50	98.63	3.620	

TRCOP SUPPORT HISTORICAL INFLATION INDICES

BLS CODE: 03-15 INDUSTRIAL COMMODITIES

FY	FISCAL YR									FISCAL YR FACTOR			
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	YR AVERAGE
84	318.50	318.30	318.40	319.10	320.60	321.90	322.60	323.20	323.80	324.00	323.50	322.30	321.35
83	314.30	315.00	315.20	313.90	313.50	312.40	313.80	315.40	316.60	317.50	318.70	315.01	310.02
82	309.30	310.00	311.80	311.60	311.00	309.90	309.60	310.60	312.80	313.20	312.70	310.95	310.33
81	282.00	283.40	286.60	291.50	295.70	299.60	303.90	304.70	305.10	306.20	307.20	307.40	297.74
80	249.00	250.60	253.10	260.60	265.90	268.60	271.30	271.90	273.50	276.20	278.20	278.80	266.47
79	216.70	216.00	217.20	220.00	222.50	225.40	229.00	231.60	234.00	237.50	240.60	244.20	227.72
78	199.10	199.30	200.00	201.60	202.90	204.10	206.10	207.40	208.70	210.10	211.40	212.50	205.26
77	186.30	187.10	187.40	188.40	189.00	191.70	193.30	194.20	194.70	195.90	196.90	197.80	191.89
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FY	FISCAL YR									FISCAL YR			
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	YR AVERAGE
76	171.20	172.20	173.10	174.70	175.40	176.10	177.30	178.10	179.10	180.00	180.40	181.30	177.98
77	182.60	183.60	184.70										1.805
75	157.80	161.60	162.90	164.90	165.80	166.10	167.50	168.40	168.90	169.70	170.30	170.70	166.20
74	126.10	126.70	127.40	128.50	130.10	132.20	135.30	138.20	142.40	146.60	150.50	153.60	136.46
73	118.10	118.50	118.70	118.90	119.10	119.40	120.00	121.30	122.80	124.20	125.30	126.00	121.01
72	114.50	115.10	115.00	115.00	114.90	115.30	115.90	116.50	116.80	117.30	117.60	117.90	115.98
71	110.10	110.20	110.40	111.20	111.30	111.70	112.20	112.50	112.80	113.30	113.70	113.90	111.94
70	105.70	106.10	106.50	107.10	107.40	107.80	108.30	108.60	108.80	109.30	109.60	109.90	107.92
69	102.40	102.50	102.80	103.30	103.40	103.80	104.30	104.90	105.40	105.50	105.60	104.11	104.11
68	99.70	100.00	100.20	100.50	100.80	101.10	101.50	102.00	102.40	102.30	102.40	101.25	101.25
67	97.01	99.00	99.03	99.10	99.20	99.50	99.70	99.60	99.70	99.70	99.70	99.70	99.36
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